



## Avaya Solution and Interoperability Test Lab

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### **Application Notes for interoperability between SYMON Enterprise Software Version 11.0.1 and Avaya Aura® Contact Center Release 6.0 – Issue 1.0**

#### **Abstract**

These Application Notes describe a solution comprised of Avaya Aura® Contact Center Release 6.0 and SYMON Enterprise Software Real-Time Display Version 11.0.1. During the compliance testing, the SYMON Enterprise Software was able to successfully connect to CCMS server's database, monitor all available statistics, and prove that the values collected are accurate and in harmony with the predicted values in Avaya Aura Contact Center 6.0.

Information in these Application Notes has been obtained through DevConnect compliance testing and additional technical discussions. Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab.

## 1. Introduction

The objective of this compliance test is to validate that SYMON Enterprise Software Version 11.0.1 (hereafter referred as SES) can connect successfully to the database of Avaya Aura<sup>®</sup> Contact Center Release 6.0 (hereafter AACC), monitor all available statistics, and prove that the values collected are accurate and in harmony with the predicted values from AACC.

## 2. General Test Approach and Test Results

The General test approach was to verify that the SES was able to integrate with the AACC. SES uses the Avaya Aura Collector (AAC) to connect to the AACC 6.0 RTD API to monitor a wide range of real time statistics that are available from AACC 6.0. The AAC is part of Portal Administrator, which is an application that is part of SES and runs on the same PC.

Once Avaya Aura Collector is logged into AACC, all keys are extracted from the database including Application, Skillset, Agent, and IVR Queue statistics. All statistics can be viewed using a *Portal Data Viewer*, which is a debugging tool that is part of SES.

### 2.1. Interoperability Compliance Testing

The focus of this testing was to verify that SES can connect to Avaya platform using AACC 6.0 successfully, monitor all available statistics, and prove that the values collected are accurate and in harmony with the predicted values from AACC 6.0.

The scope of the test was to verify that a reliable connection to AACC 6.0 can be established, all available statistics for a specific application, skillset, agent, IVR or Nodal queue can be published, and the real-time statistics collected are verifiably accurate as compared to the data reported by other real-time monitoring devices.

### 2.2. Test Results

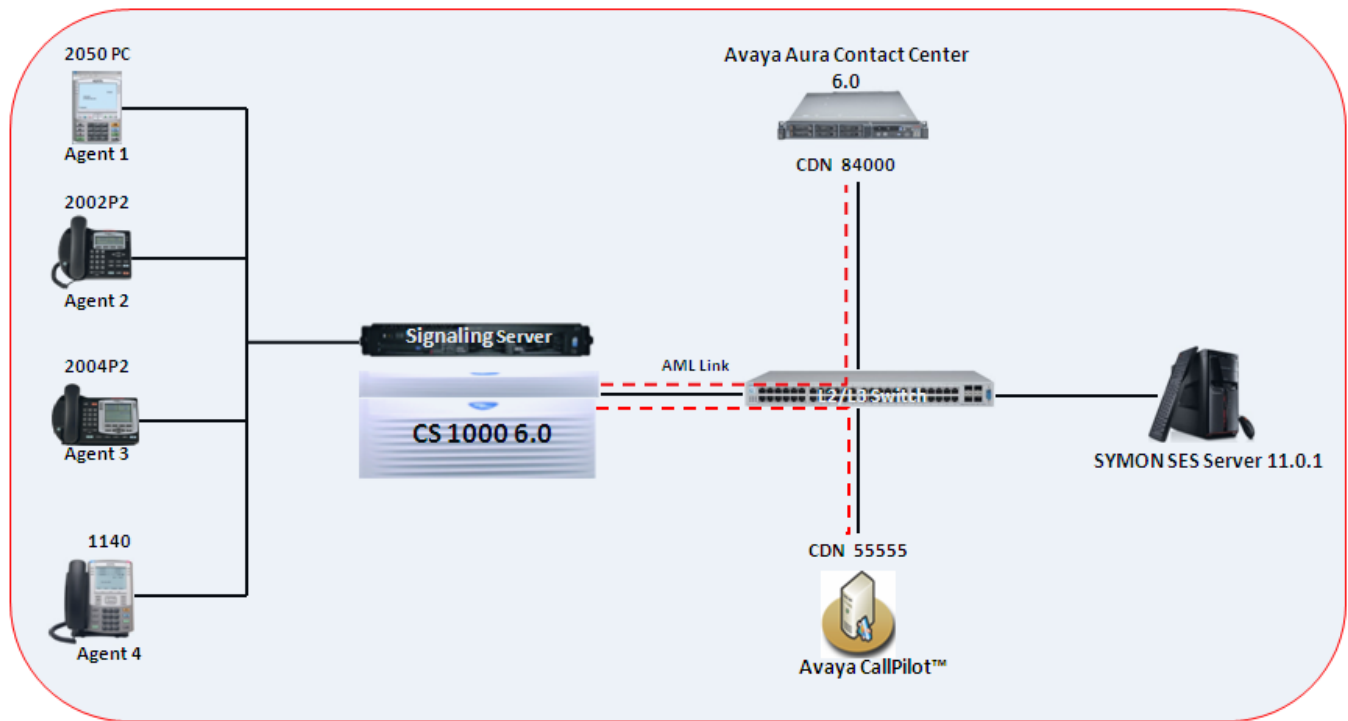
The testing was successful and all objectives were verified and met. All test cases were executed and they all passed.

### 2.3. Support

Technical for the SYMON Enterprise Software can be reached by contacting email at [support@symon.com](mailto:support@symon.com) or phone +1 (877) 789-8324.

## 3. Reference Configuration

**Figure 1** illustrates the network diagram configuration used during the compliance testing between the AACC and the SES.



**Figure 1 – Network Diagram Configuration**

## 4. Equipment and Software Validated

The following equipment and software were used during the lab testing:

System	Software Version
Avaya CS1000E	Call Server (CPPM): 6.00RJ Signaling Server (CPPM): 6.00.18
Avaya IP Soft Phone 2050	3.04.0003
Avaya IP Phone 1140	0625C6O
Avaya IP Phone 2004P2	0692D93
Avaya IP Phone 2002P2	0604DC5
Avaya CallPilot	5.0
Avaya Aura® Contact Center	6.208
SYMONE Enterprise Software	11.0.1

## 5. Configure Avaya CS1000

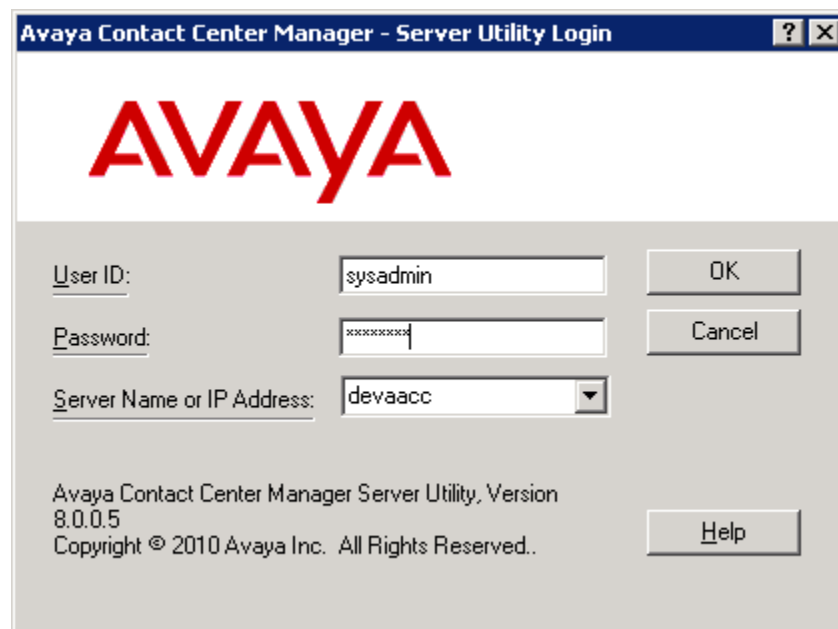
This document assumes that the Avaya CS1000 was properly installed and configured as per the product document. For more information about how to install and configure Avaya CS1000, please refer to **Section 10 [1]**.

## 6. Configure Avaya Aura® Contact Center

This document assumes that the AACC system was properly installed, configured and operated as per the product document, for more information about how to install, configure and administer please refer to **Section 10 [2]**. This section provides additional steps in creating a new user name and password that is used by SES to connect to AACC CCMS's database.

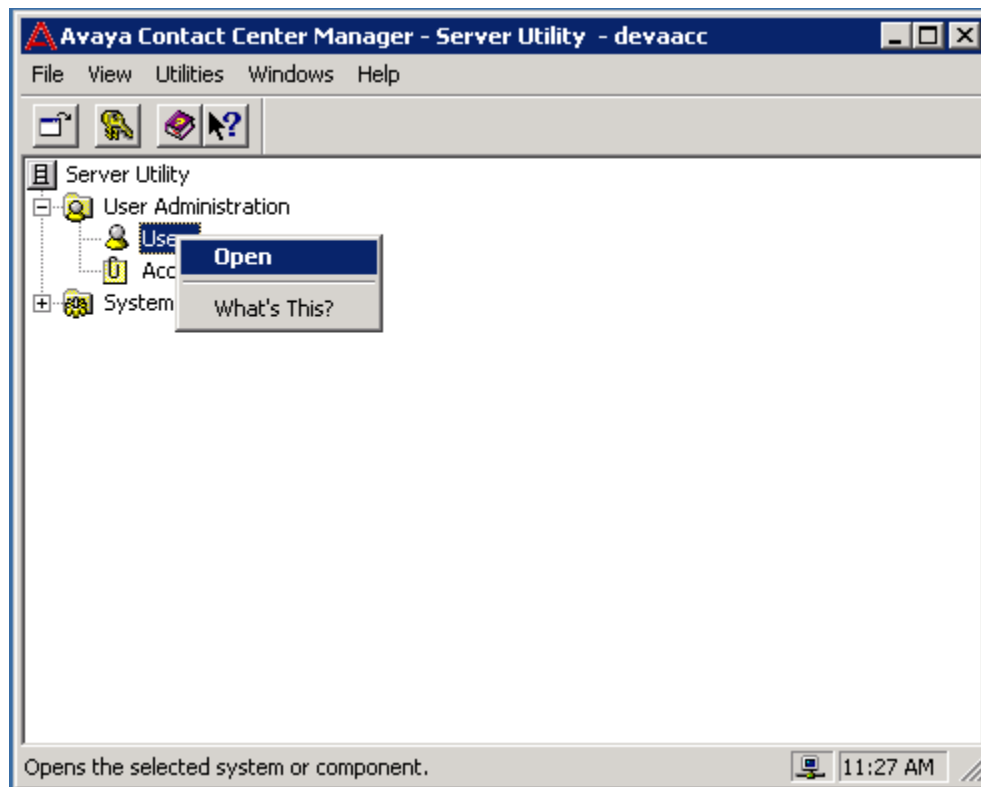
To create new credentials, log in to the CCMS server as administrator where the *System Utility* application is installed and navigate to **Start > All Programs > Avaya > Contact Center > System Utility**.

The *Server Utility Login* window appears as shown in **Figure 2**. Enter username *sysadmin* and its password to log in to the Server Utility application, to obtain the sysadmin password, please contact the system administrator.



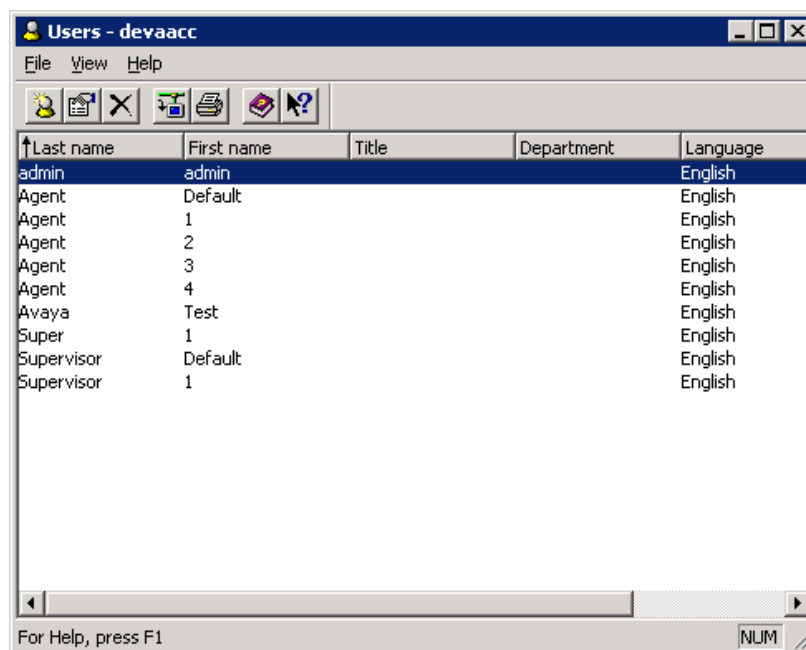
**Figure 2 – Server Utility Login window**

**Figure 3** below shows the *Server Utility* application window. To open the *Users* window, right click the mouse button on the *Users* tab under the *User Administrator* and select the **Open** options.



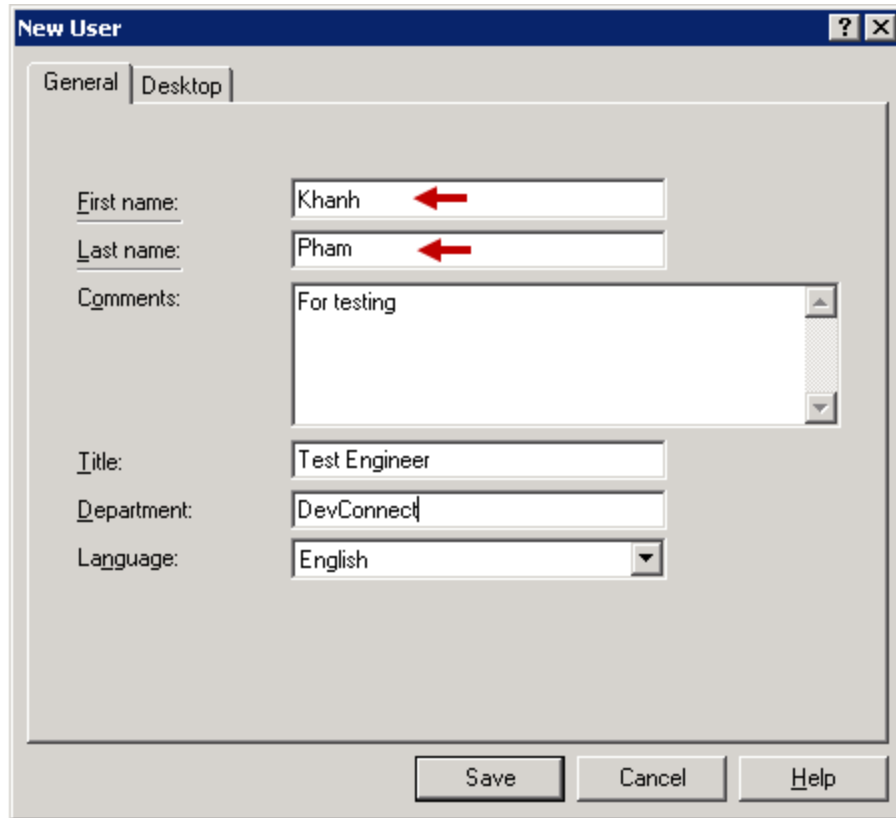
**Figure 3 – Server Utility window**

The Users window appears as shown in **Figure 4**. In the *User* window, navigate to **File > Add new user**.



**Figure 4 – Users window**

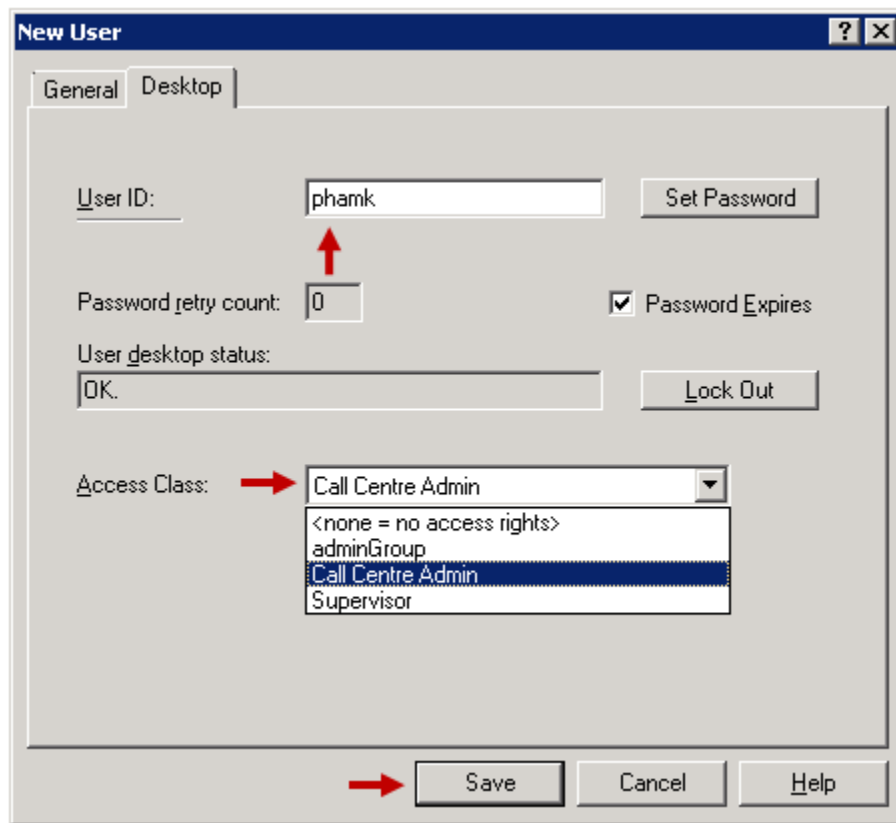
Enter user information as shown in **Figure 5** and **6** and click on the **Save** button.



The image shows a 'New User' dialog box with a blue title bar and standard window controls. It has two tabs: 'General' (selected) and 'Desktop'. The 'General' tab contains several input fields: 'First name' with the value 'Khanh', 'Last name' with the value 'Pham', 'Comments' with the value 'For testing', 'Title' with the value 'Test Engineer', 'Department' with the value 'DevConnect', and 'Language' with a dropdown menu set to 'English'. Red arrows point to the 'First name' and 'Last name' fields. At the bottom are 'Save', 'Cancel', and 'Help' buttons.

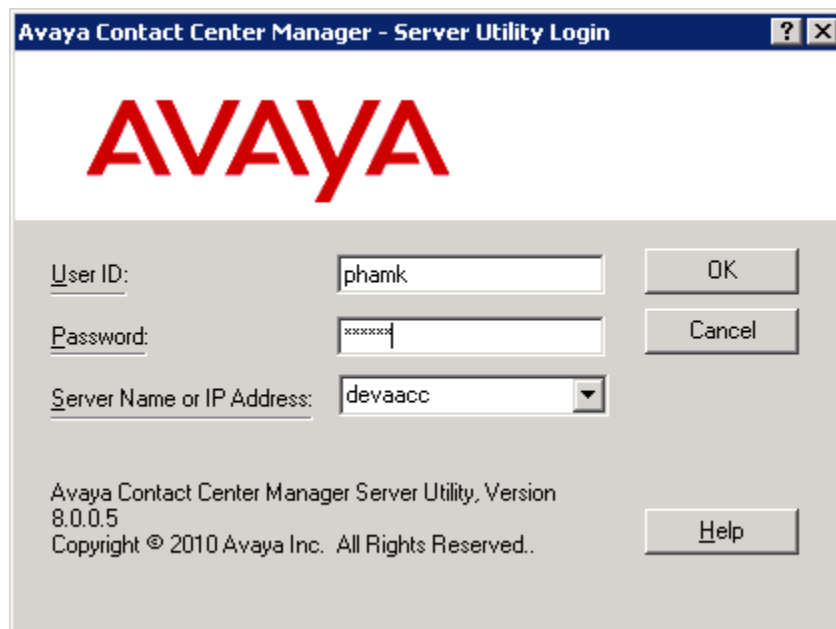
Field	Value
First name:	Khanh
Last name:	Pham
Comments:	For testing
Title:	Test Engineer
Department:	DevConnect
Language:	English

**Figure 5 – General tab of the New User window**

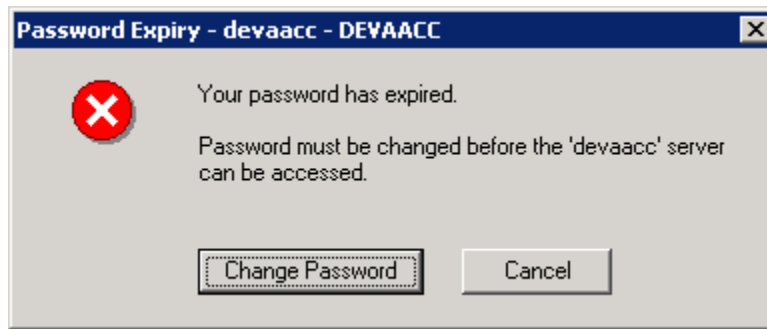


**Figure 6 – Desktop tab of the New User window**

By default the initial password expires after first login and must be changed as shown in **Figure 7** and click on the **Change Password** button as shown in Figure 8 to change the password.



**Figure 7 – First login of new user in the Server Utility Login**



**Figure 8 – Password Expiry window**

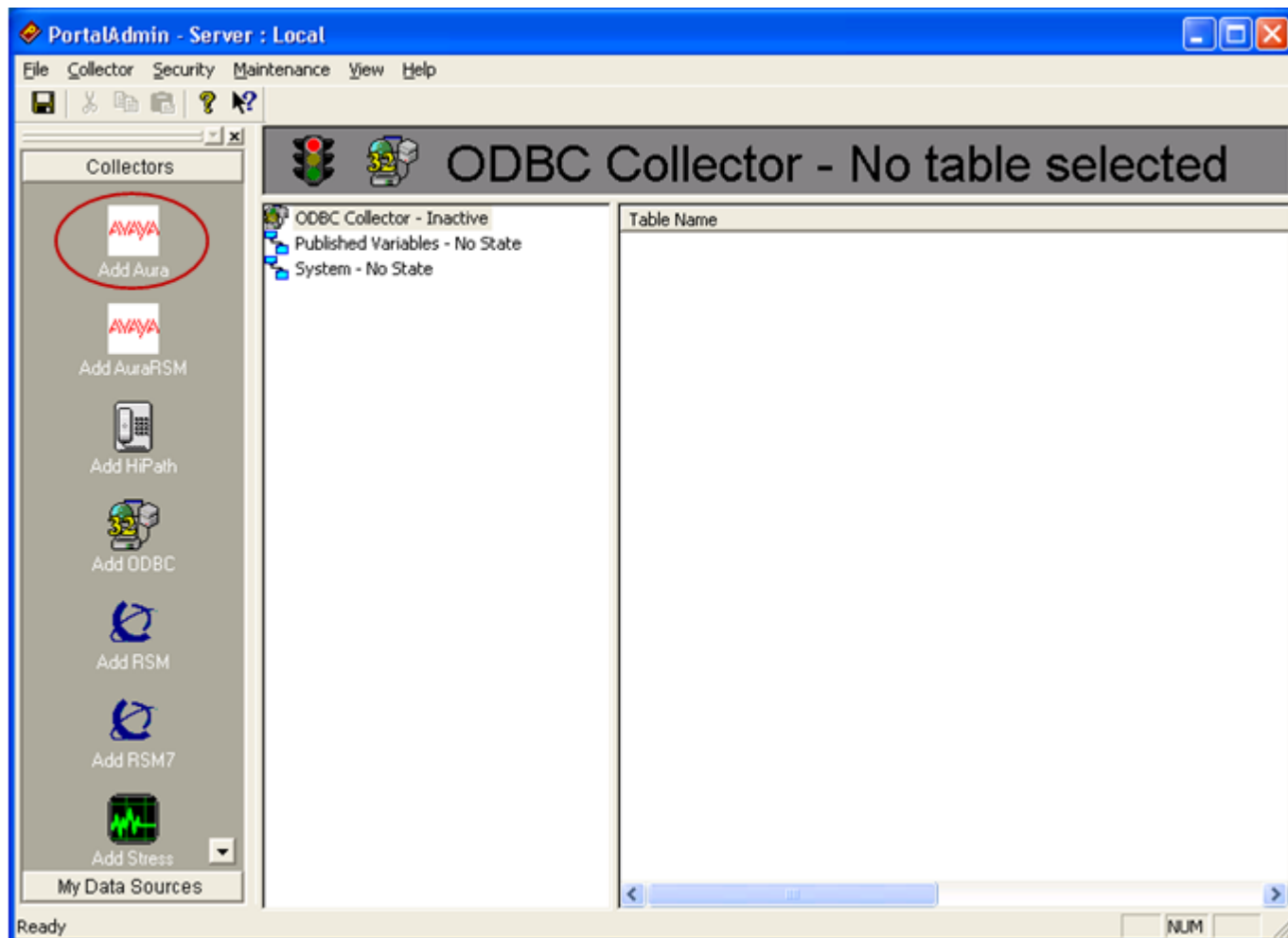
## **7. Configure SYMON SES Server**

This document assumes that SES server was properly installed and configured by a SYMON Engineer. This section provides steps on configuring the **SES Portal Administrator** and **Portal Data Viewer** to work with AACC system.

### **7.1. Configure SES Portal Admin**

To configure *PortalAdmin* log in to the SES server as an administrator go to: **Start > All Programs > Symon Enterprise Server > Portal Admin**, the *PortalAdmin* window appears as shown in **Figure 9**.

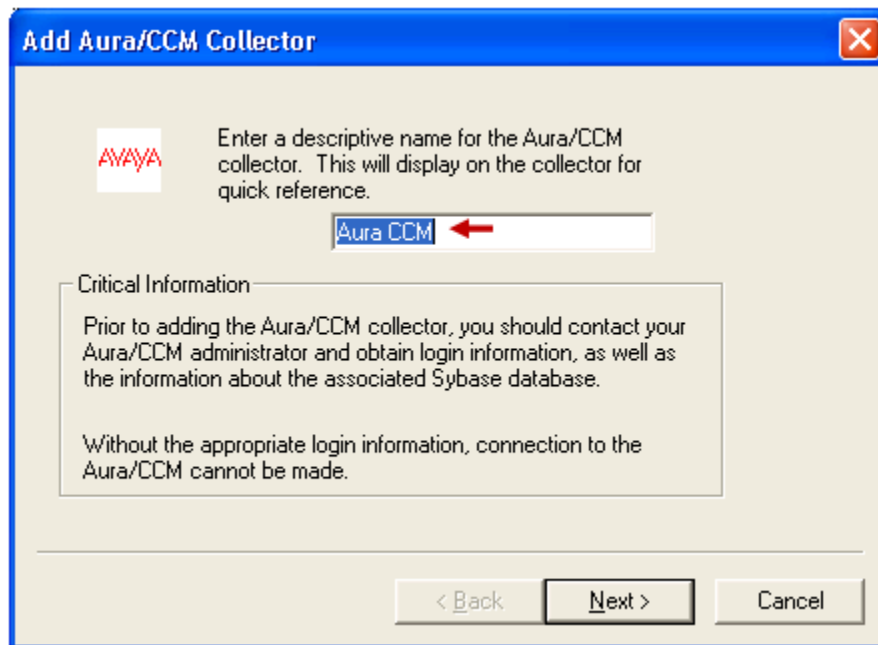




**Figure 9 – PortalAdmin window**

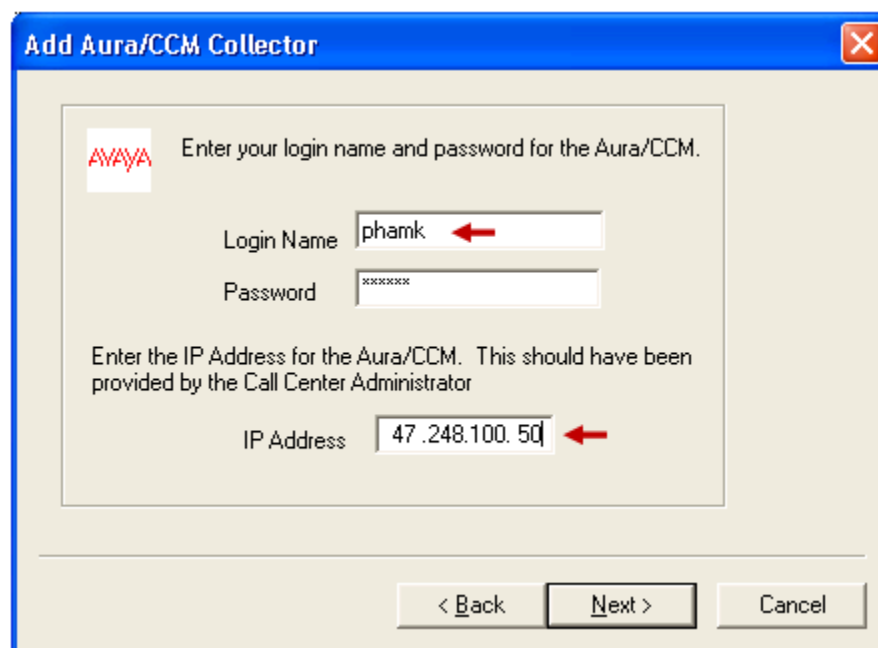
On the left hand side of the *PortAdmin* window, click on the **Add Aura** icon to Add Aura/CCM Collector as shown in **Figure 10**.

Enter a name in the name box as **Aura CCM** and click on the **Next** button to continue.



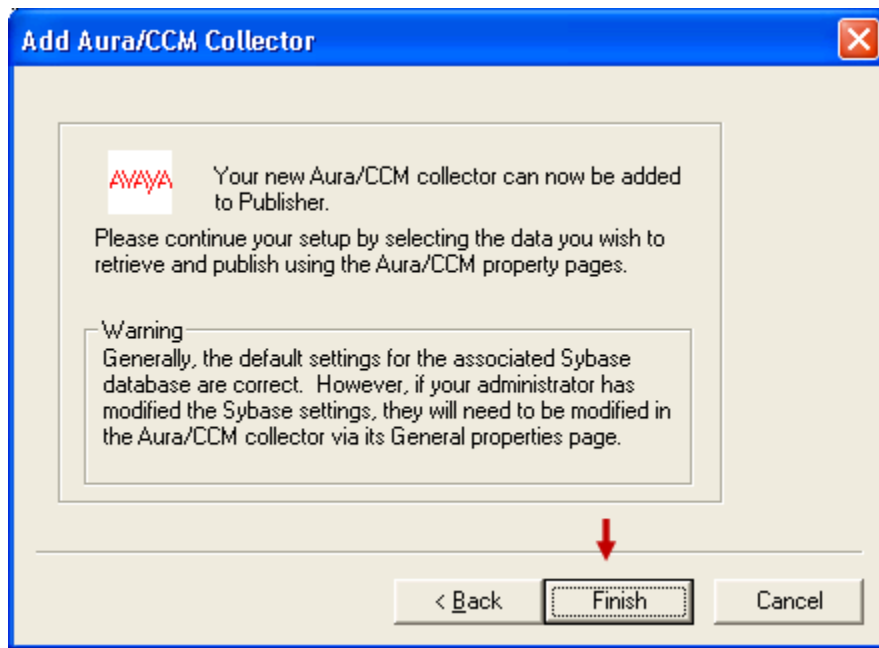
**Figure 10 – Add Aura/CCM Collector window**

The next window appears as shown in **Figure 11**. Enter the credentials that were created in **Section 6** and the IP address of CCMS server.  
Click on the **Next** button to continue.



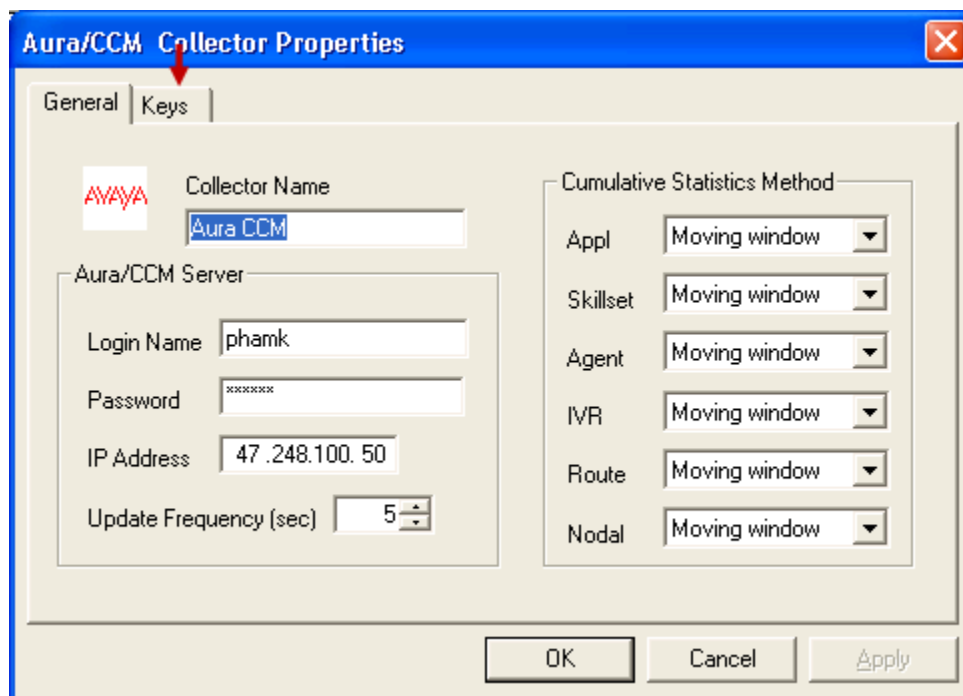
**Figure 11 – Enter the credentials on the Add Aura window**

The summary window appears as shown in **Figure 12** and click on the **Finish** button to complete adding an Aura CCM and go to the **Aura/CCM Collector Properties** window.



**Figure 12 – Add Aura finishing window**

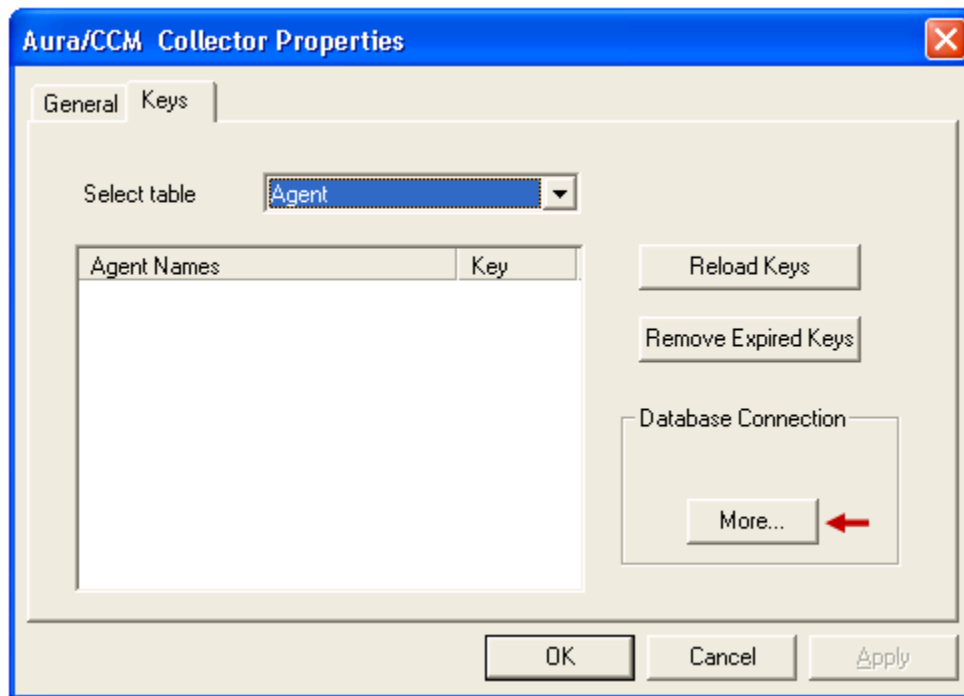
The *Aura/CCM Collector Properties* window appears as shown in **Figure 13** below.



**Figure 13 – Aura/CCM Collector Properties window**

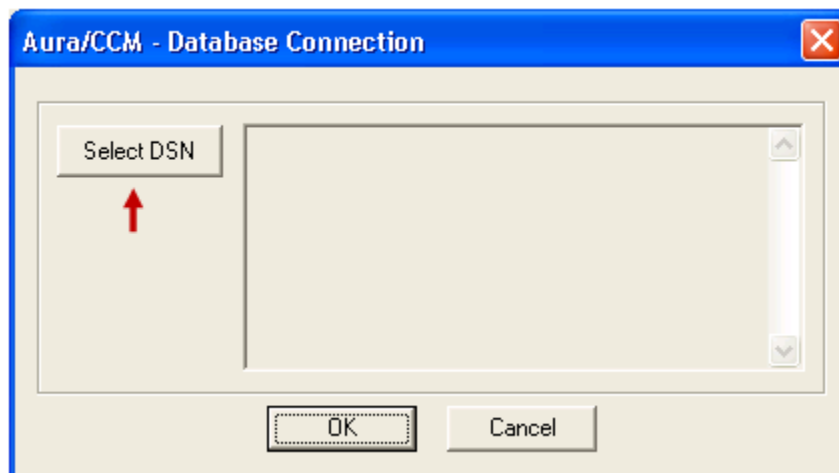
Click on the **Keys** tab of *Aura/CCM Collector Properties* window as shown in **Figure 14**.

On the right hand side at the bottom of window, click on the **More...** button of the *Database Connection* section.



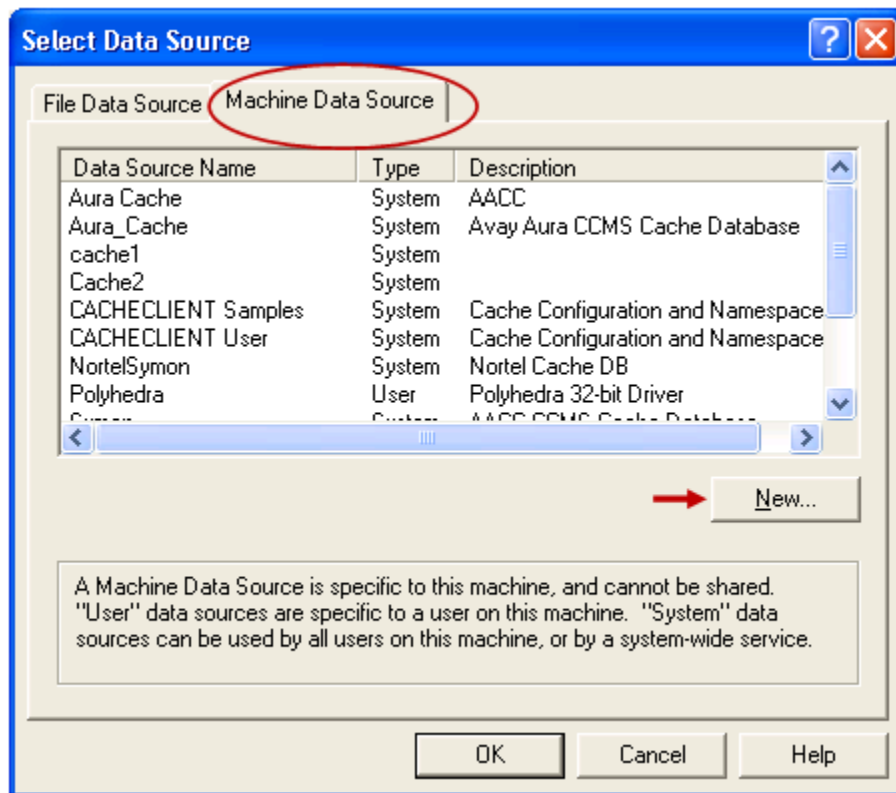
**Figure 14 – Keys tab of Aura Collector Properties window**

The *Aura/CCM – Database Connection* window displays as shown in **Figure 15**. Click on the **Select DSN** button to open *Select Data Source* window.



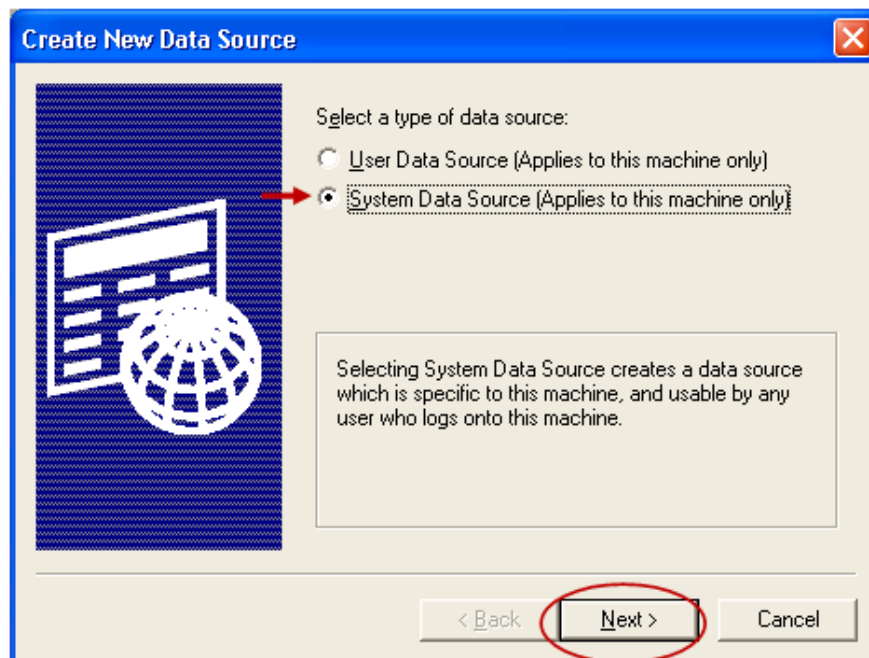
**Figure 15 – Aura/CCM – Database Connection window**

The *Select Data Source* window appears as shown in **Figure 16**. Select the **Machine Data Source** tab and click on the **New** button to create a new database.



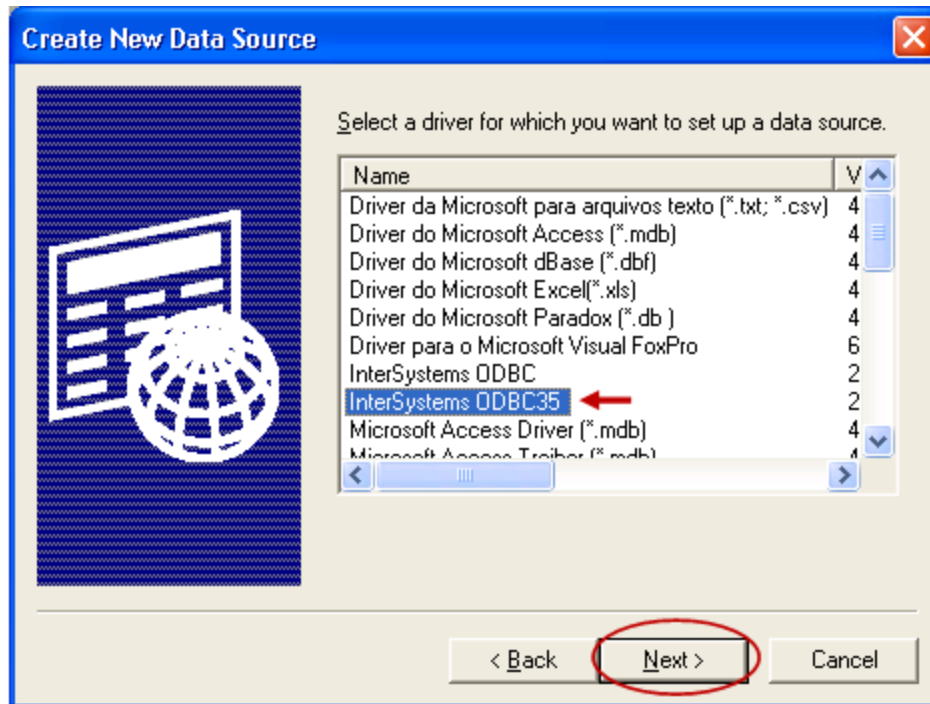
**Figure 16 – Select Data Source window**

The *Create New Data Source* window appears as shown in **Figure 17**. Select the **System Data Source** option and click on the **Next** button to continue.



**Figure 17 – Create New Data Source window**

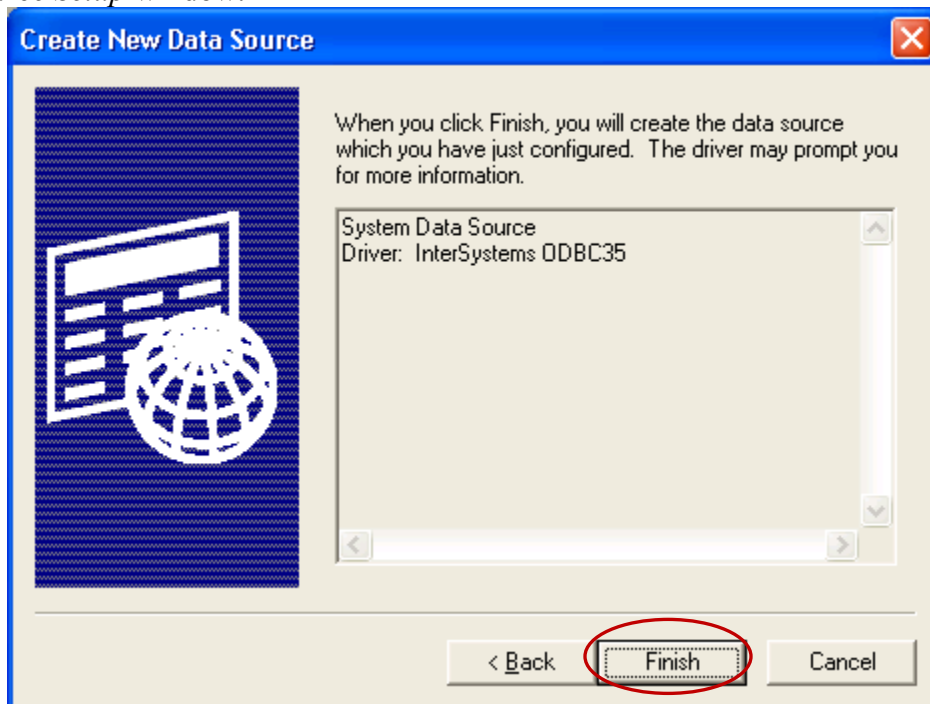
In the list of database, select the **InterSystems ODBC35** as shown in **Figure 18** and click the **Next** button to continue.



**Figure 18 – Selecting InterSystems ODBC35 database**

The summary database window appears as shown in **Figure 19**.

Click the **Finish** button to complete adding new database and go to the detail of *InterSystem Cache ODBC Data Source Setup* window.



**Figure 19 – The summary database window**

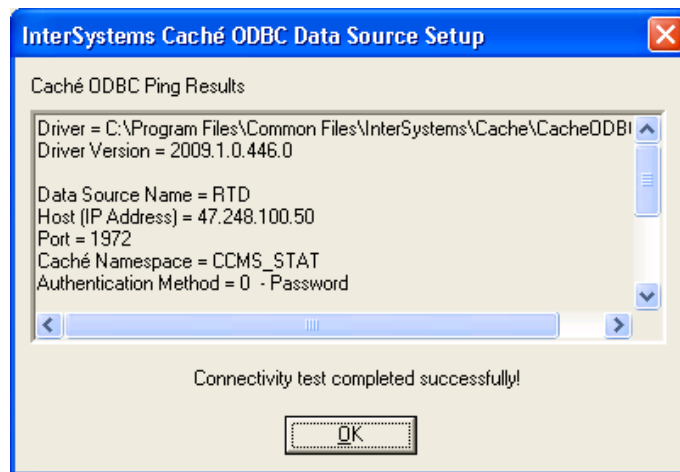
In the *InterSystem Cache ODBC Data Source Setup* window, enter database information as shown in **Figure 20** below.

**Note:** The *Cache Namespace* must be **CCMS\_STAT** which is the name defined in the CCMS server, other name would result in a failure of connecting to CCMS database.

The screenshot shows the 'InterSystems Caché ODBC Data Source Setup' dialog box. It is divided into several sections. The 'Data Source' section has a 'Name' field containing 'RTD' and a 'Description' field containing 'For testing RTD'. The 'Connection' section has three fields: 'Host (IP Address)' with '47.248.100.50', 'Port' with '1972', and 'Caché Namespace' with 'CCMS\_STAT'. The 'Authentication Method' section has four radio buttons: 'Password' (selected), 'Password with SSL/TLS', 'Kerberos', and 'Kerberos with Encryption'. Below these are fields for 'User Name' (containing 'phamk'), 'Password' (masked with 'x's'), and 'Service Principal Name' (empty). The 'Misc' section at the bottom has five checkboxes: 'ODBC Log', 'Static Cursors', 'Disable Query Timeout', 'Use Locale Decimal Symbol', and 'Unicode SQLTypes'. On the right side of the dialog, there are buttons for 'OK', 'Cancel', 'Test Connection', 'Ping', and 'Help'. A red arrow points to the 'Test Connection' button.

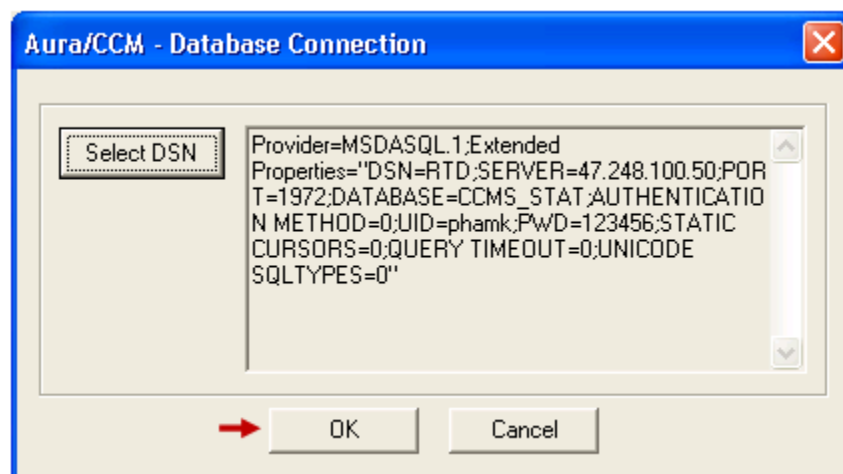
**Figure 20 – InterSystem Cache ODBC Source Setup window**

Click on the **Test Connection** button to test connectivity with CCMS server. If everything is correct, another window appears as shown in **Figure 21** stating that “*Connectivity test completed successfully*”.



**Figure 21 – Test connectivity window**

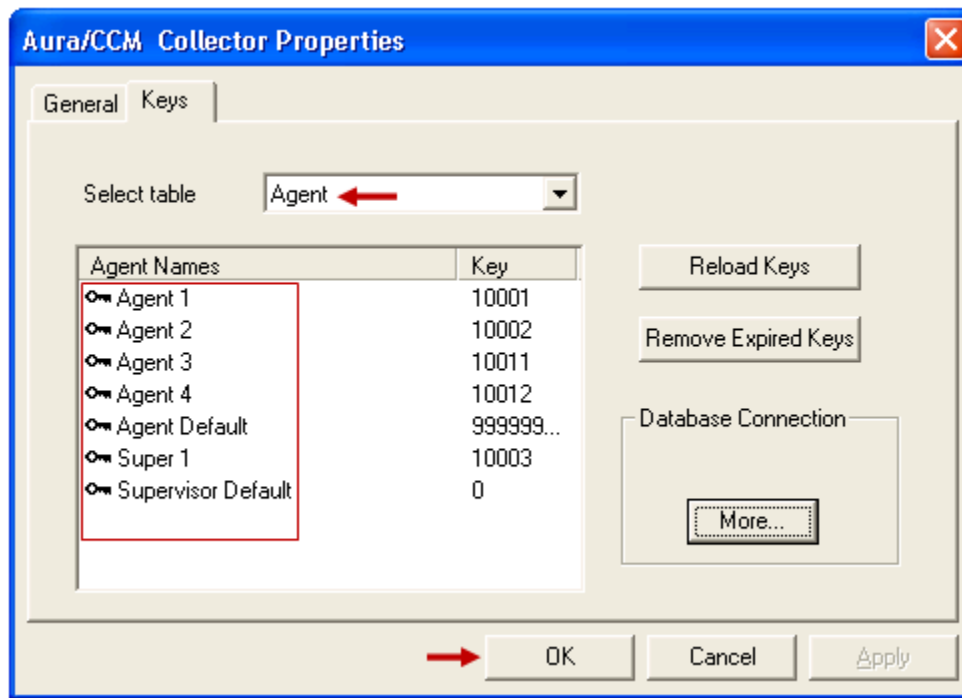
Click the **OK** button to go back to the main window of *InterSystems Cache ODBC Source Setup*.  
 Click the **OK** button of the *InterSystems Cache ODBC Source Setup* window to go back to the **Select Data Source** window  
 Click the **OK** button of the *Select Data Source* window to return to the *Aura/CCM – Database Connection* window as shown in **Figure 22**.



**Figure 22 – Aura/CCM – Database Connection with data added**

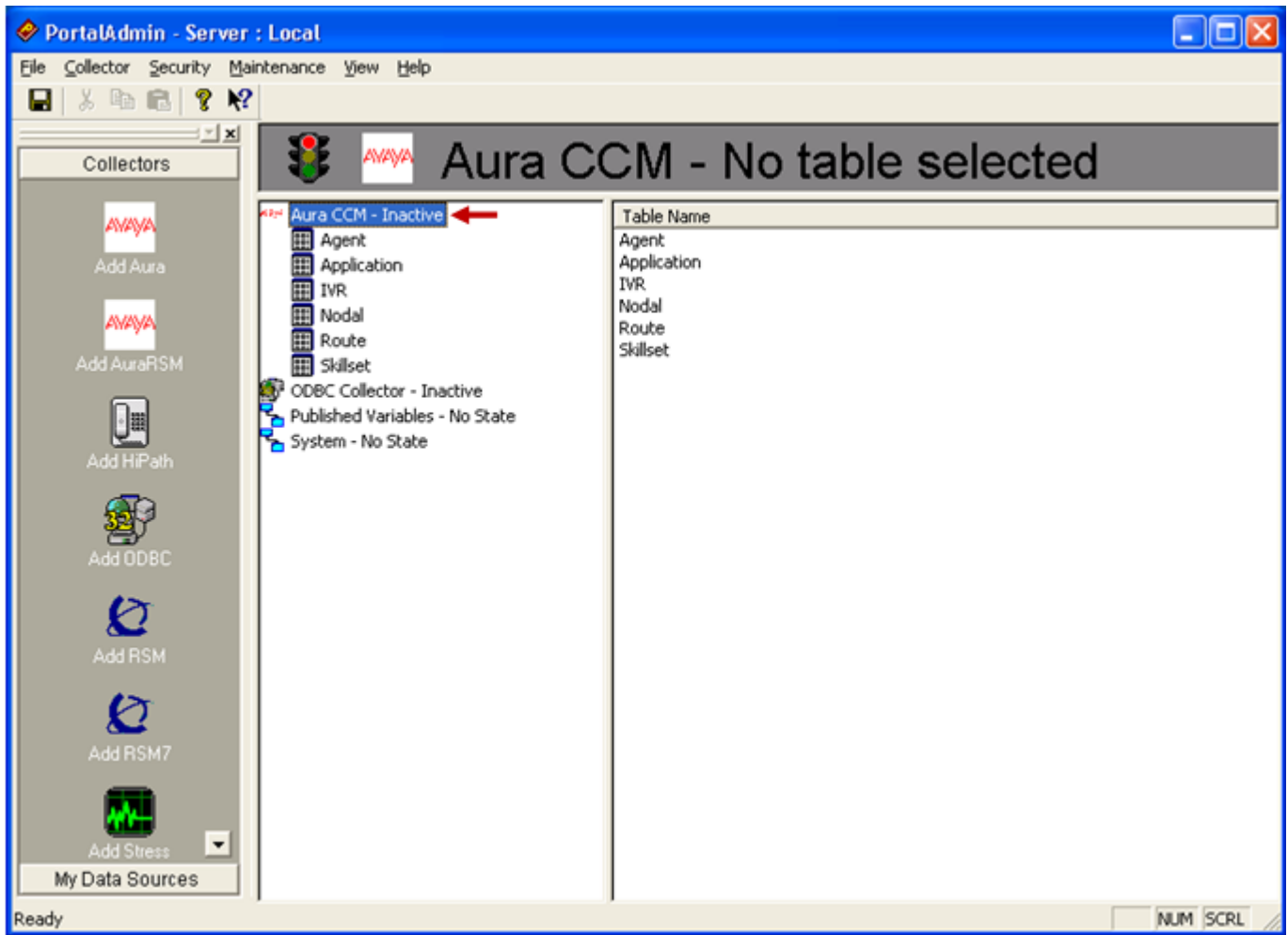
Click the **OK** button to return to the *Aura/CCM Collector Properties* window with keys of applications loaded as shown in **Figure 23**.





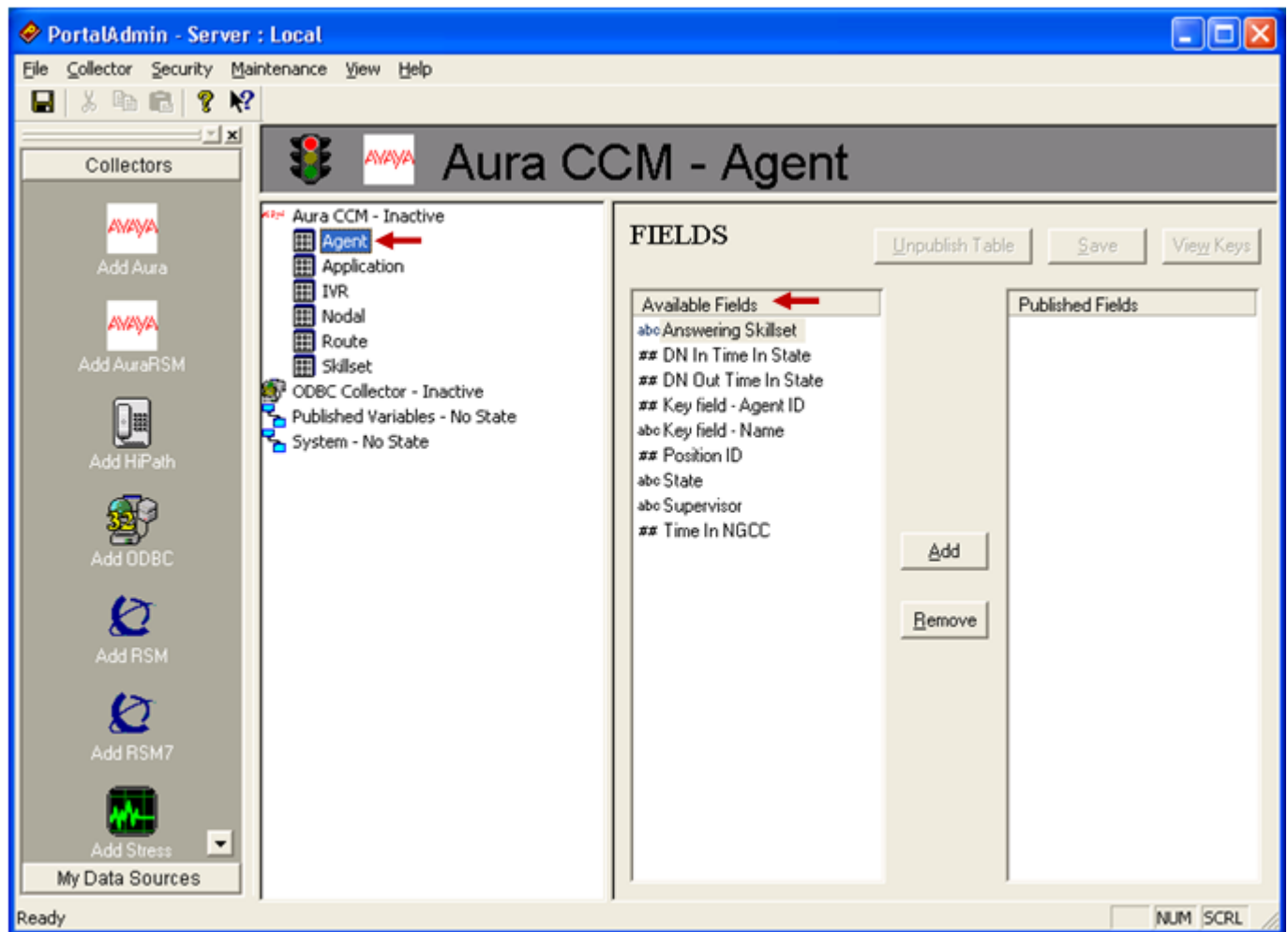
**Figure 23 – Aura/CCM Collector Properties with keys loaded**

Click **OK** to complete the process of creating new database and connecting to CCMS database and return to the *PortalAdmin* window as shown in **Figure 24**.



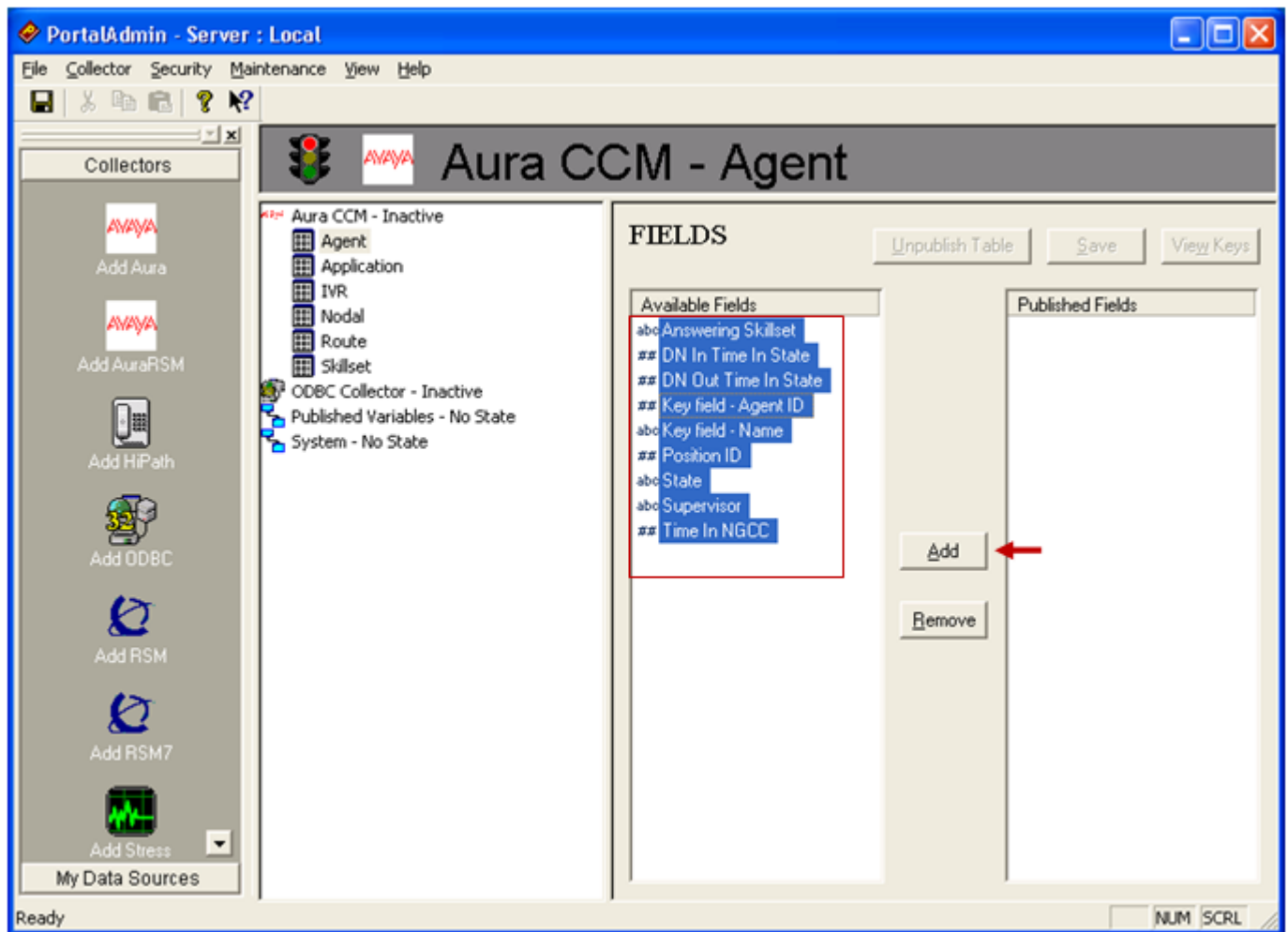
**Figure 24 – PortalAdmin window with Aura CCM created**

To publish the **Agent** application table, click on the **Agent** application tab under the **Aura CCM** collector that has been created. All keys of **Agent** application are listed under the **Available Fields** column of **Fields** window as shown in **Figure 25**.



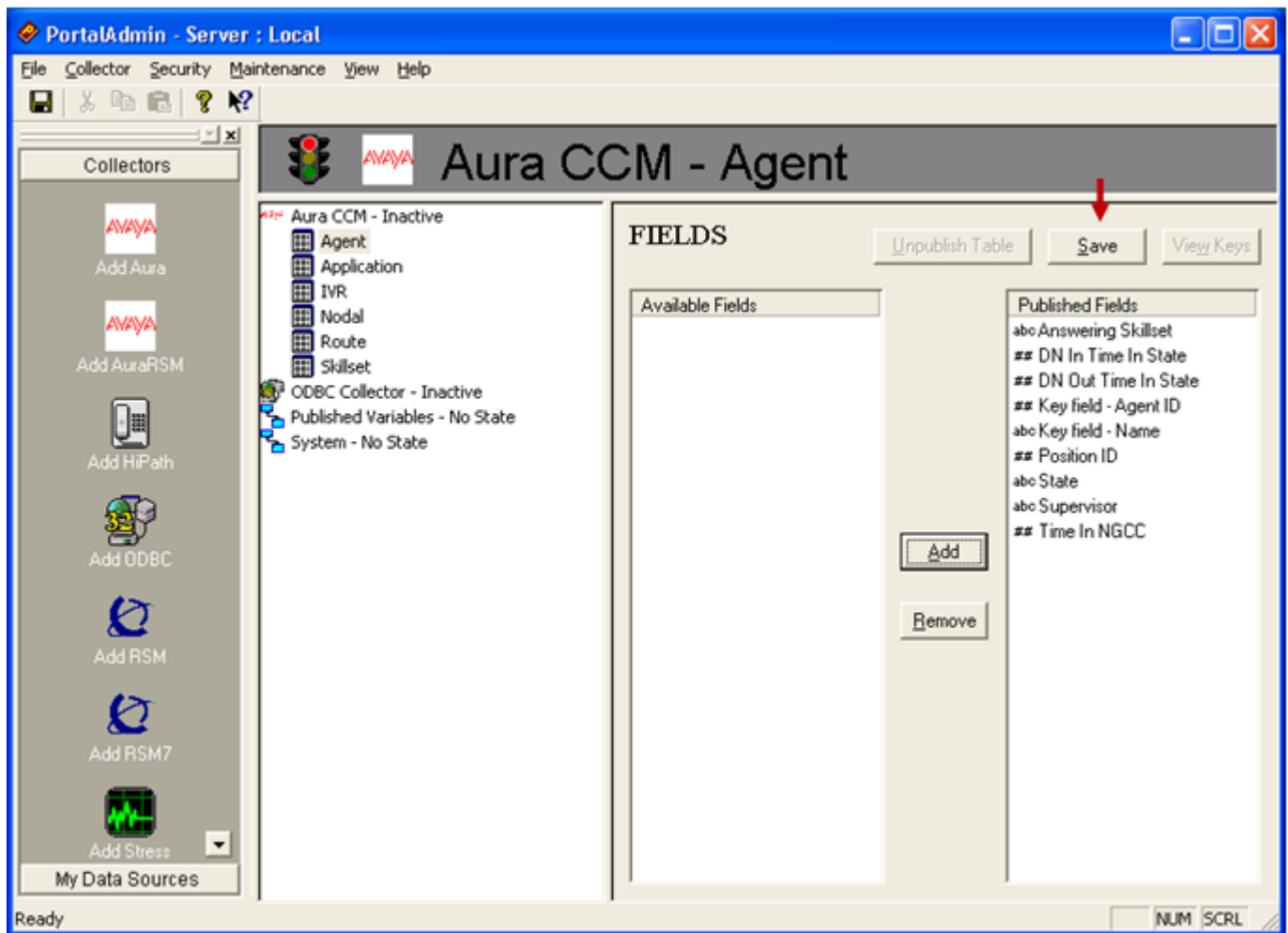
**Figure 25 – Aura CCM - Agent application window**

Select all fields of **Available Fields** column and click **Add** button as shown in **Figure 26**.



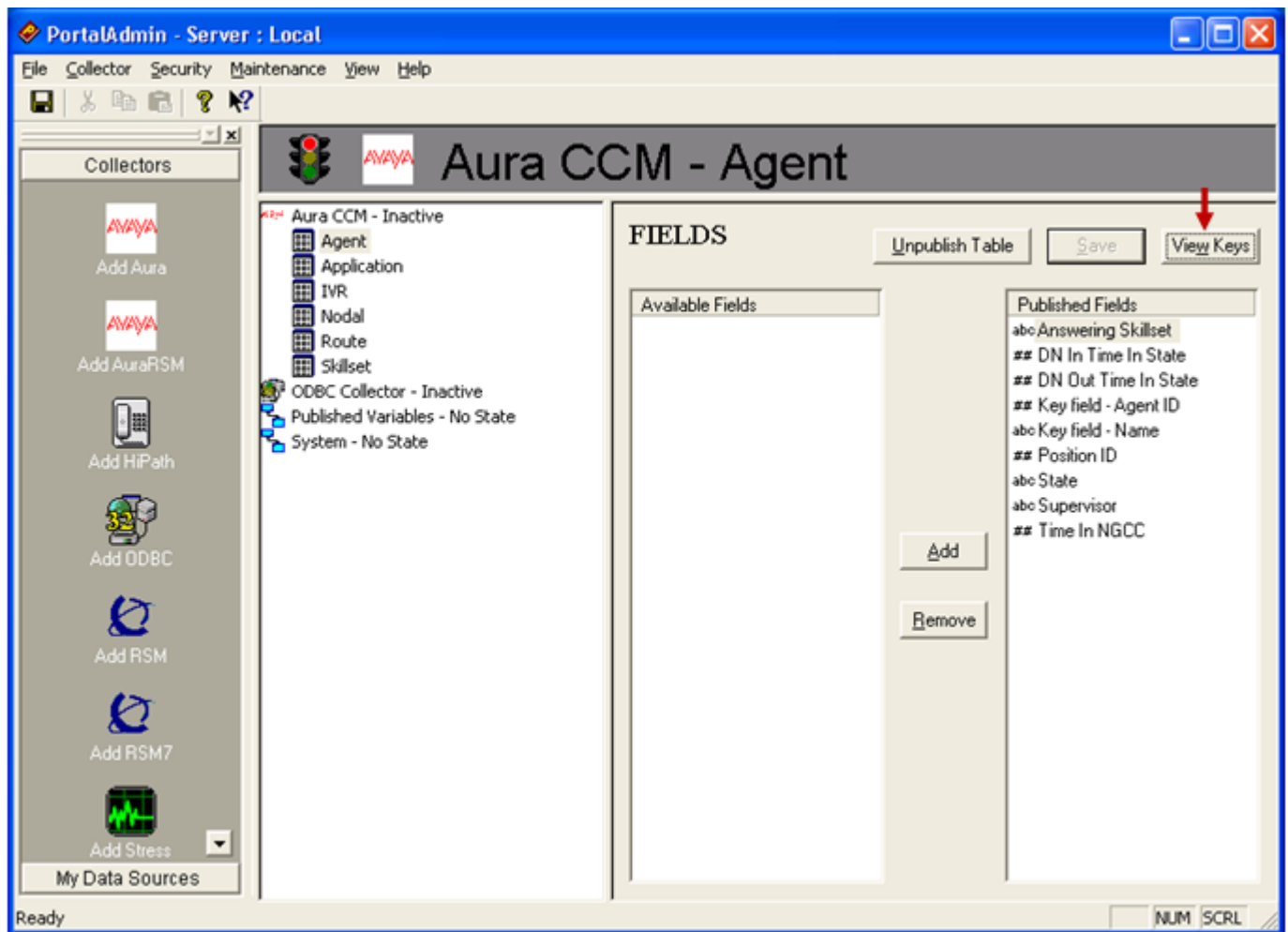
**Figure 26 – Selecting fields of Agent application**

All fields are now moved to **Published Fields** column as shown in **Figure 27** and then click on the **Save** button to save it.



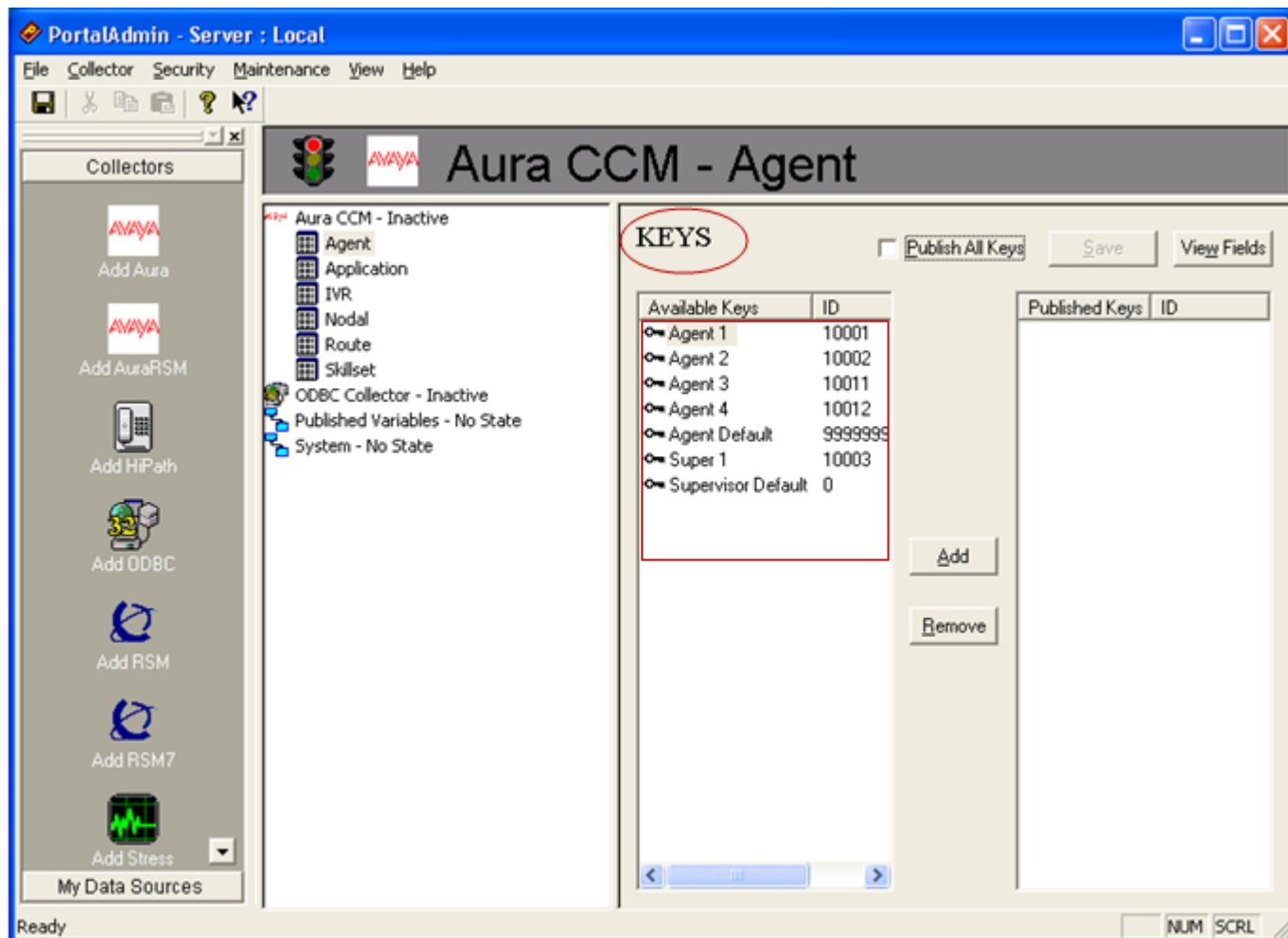
**Figure 27 – Adding fields of Agent application to Published Fields**

The **View Keys** now becomes available as shown in **Figure 28**.



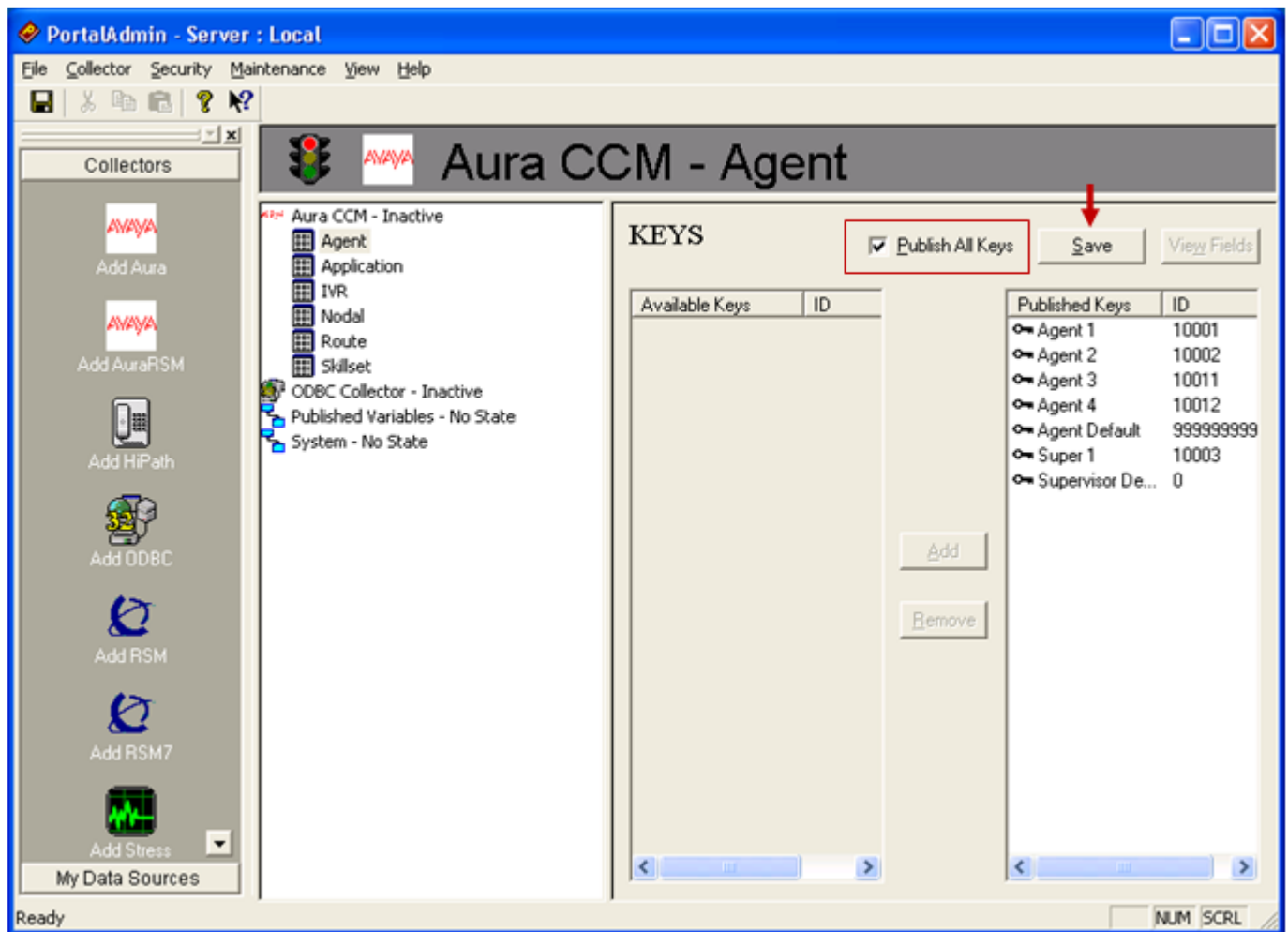
**Figure 28 – View keys button**

Click on the **View Keys** button, the **Agent** keys will display on the **Available Keys** column of **KEYS** window as shown in **Figure 29**.



**Figure 29 – The Agent Keys window**

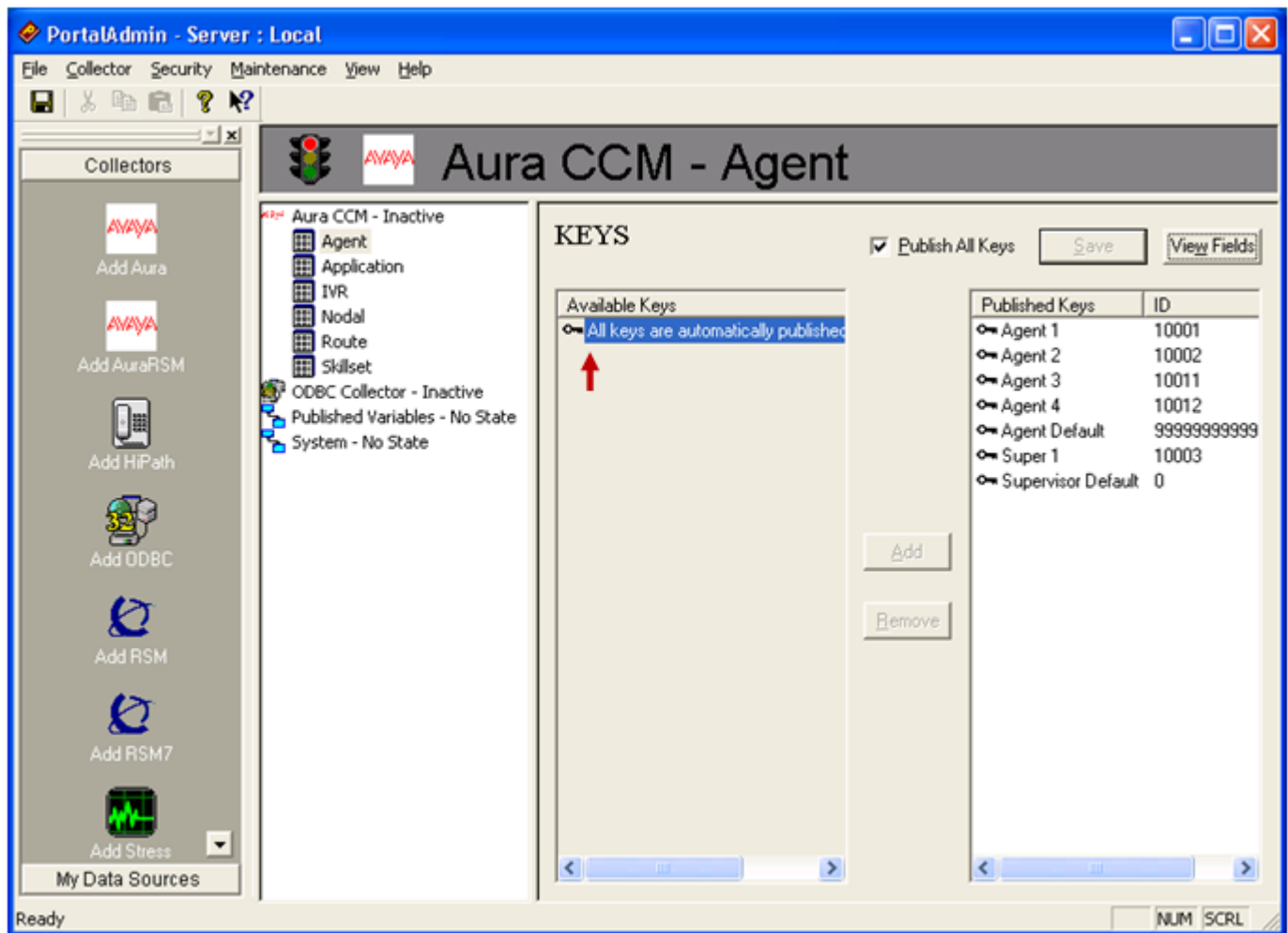
To publish all keys of **Agent** application, select the **Published All Keys** check box and all keys will be published and moved to the **Published key** column as shown in **Figure 30**.



**Figure 30 – Publish all keys**

Click on the **Save** button to save configuration and complete the publishing of all keys of the **Agent** application as shown in **Figure 31**.

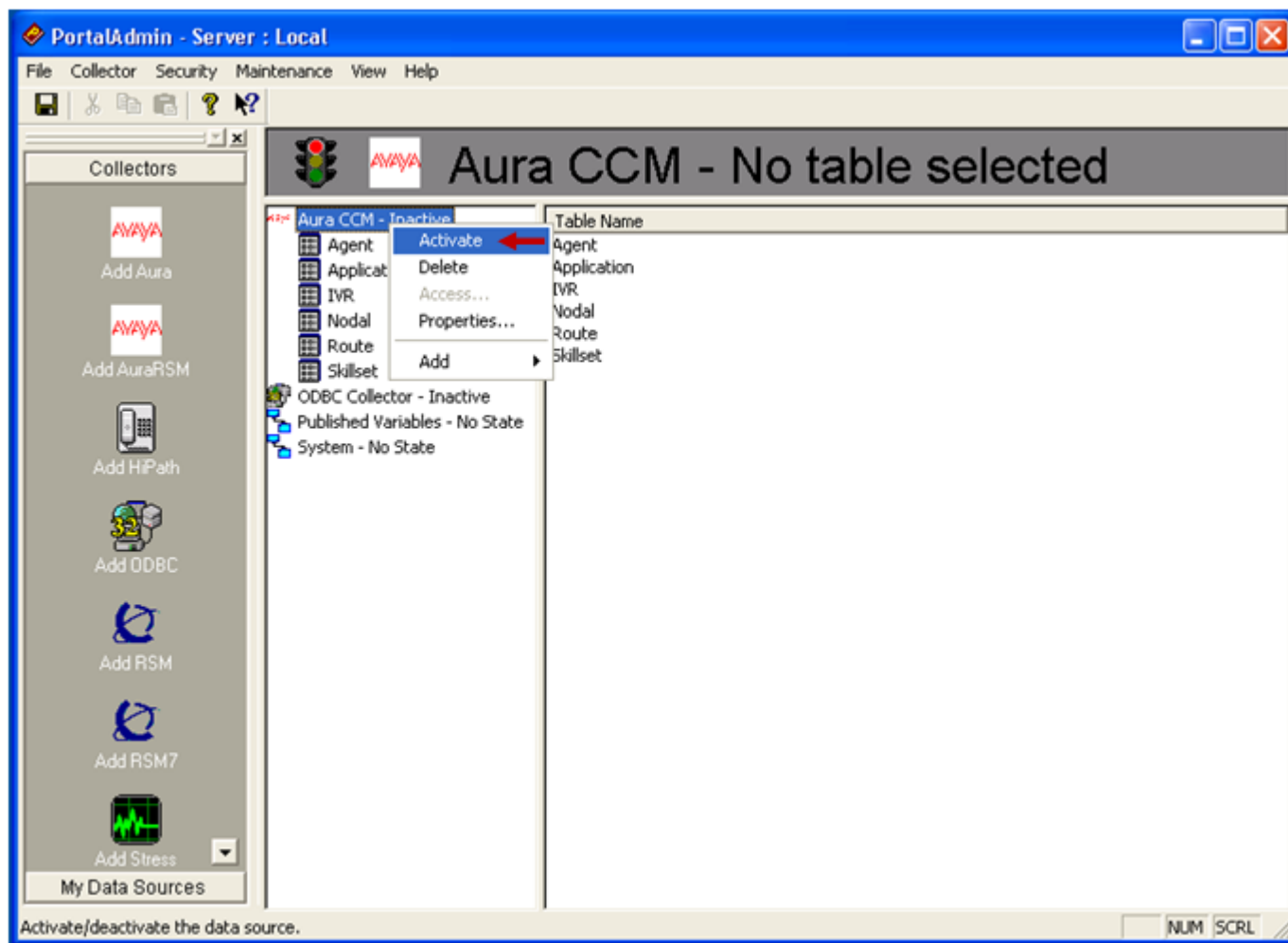




**Figure 31 – All keys of Agent application published**

Apply the steps above of publishing **Agent** application for remaining applications of **Aura CCM** such as **Application**, **IVR**, **Nodal**, **Route**, and **SkillSet**.

To activate the **Aura CCM** collector, right click on the Aura CCM and select the **Activate** option on the menu as shown in **Figure 32**.



**Figure 32 – Activate the Aura CCM Collector**

The **Aura CCM** collector is successfully activated as shown in **Figure 33**.

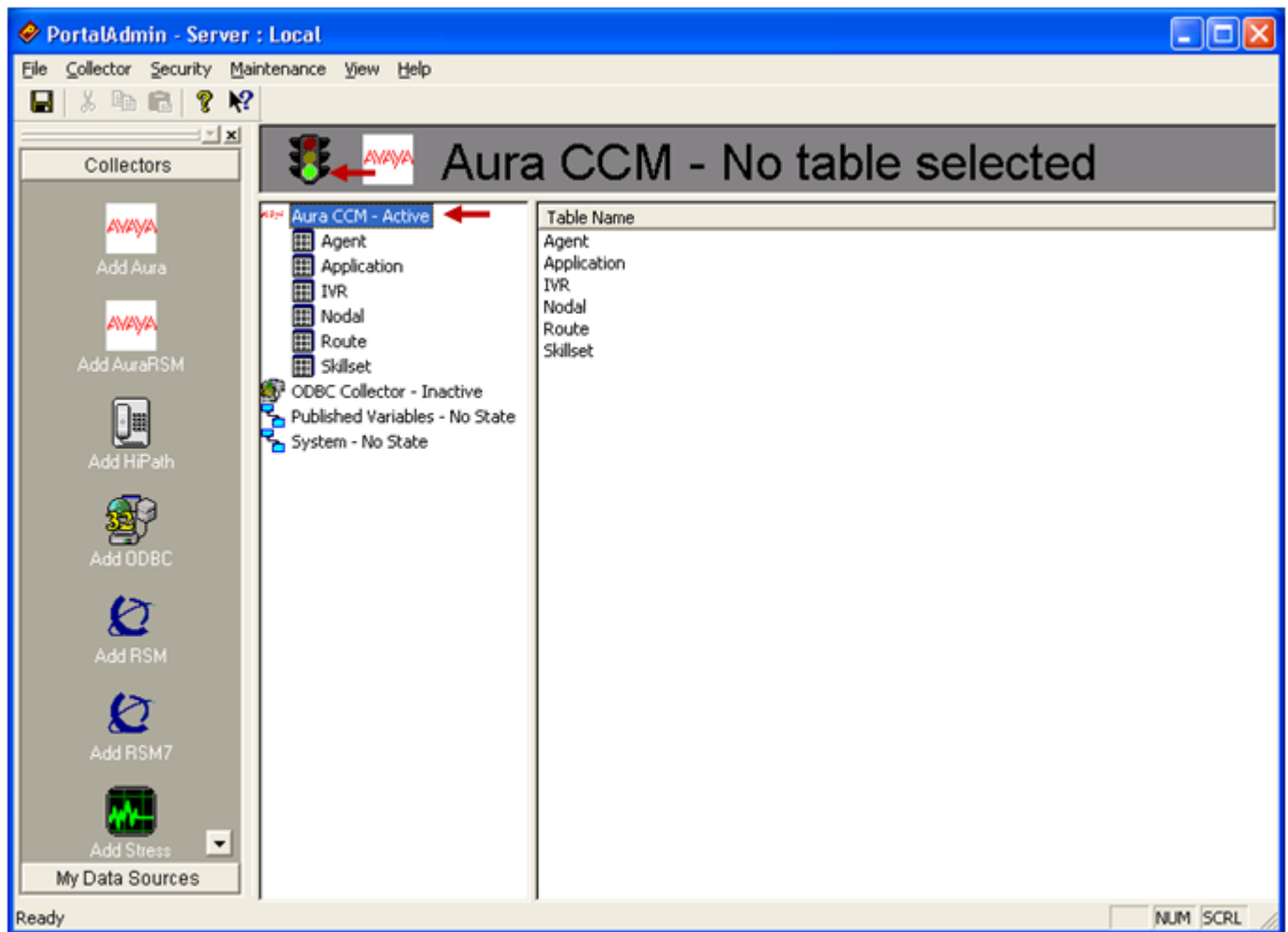


Figure 33 – Aura CCM collector activated

## 7.2. Configure SES Portal Data Viewer

To open *Portal Data Viewer*, log in the SES server as administrator and navigate to Start > All Programs > Symon Enterprise Software > Portal Data Viewer, the *Portal Data Viewer* window appears as shown in Figure 34.

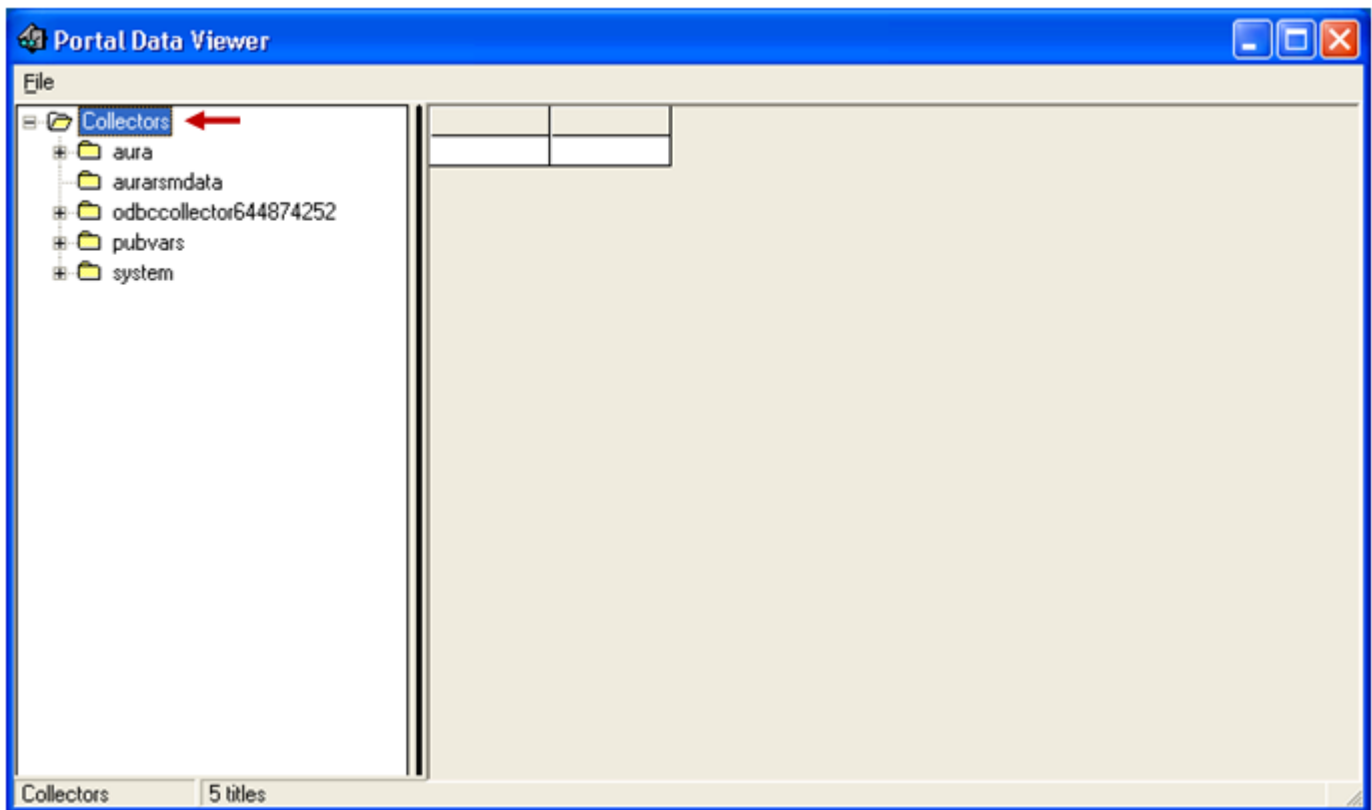


Figure 34 – Portal Data Viewer

Under **Collectors** tree menu, **expand aura** folder and then expand **Aura CCM** folder and click on the **aura\_agent** tab to display real time data of Agent application streamed from the CCMS server as shown in **Figure 35**.

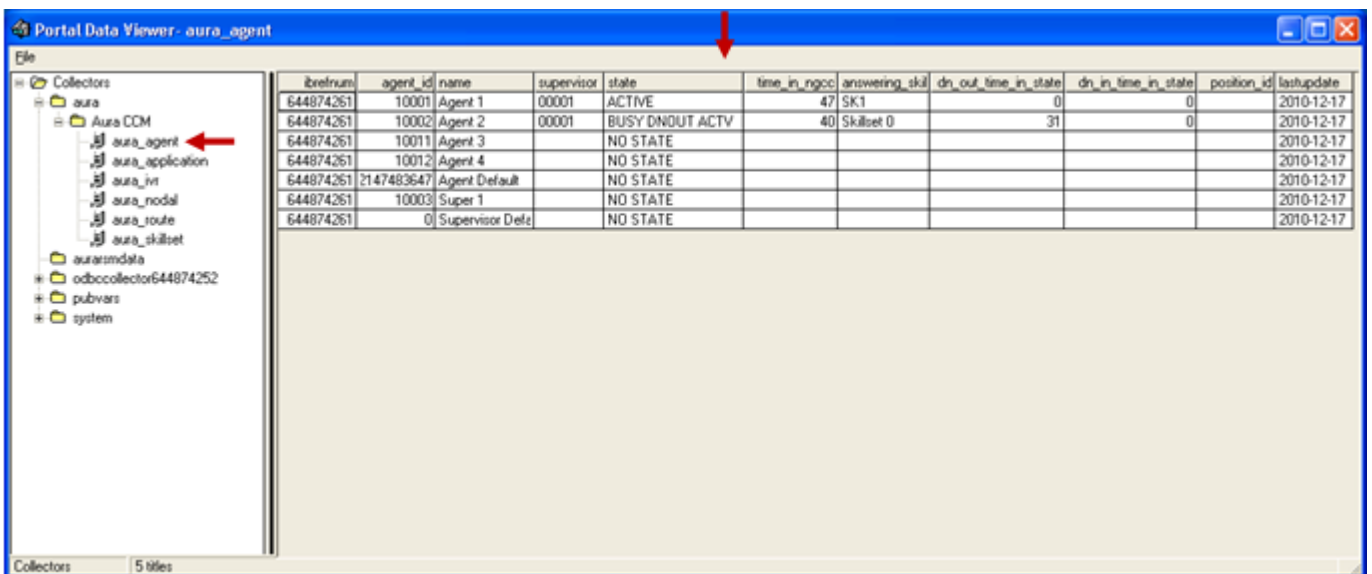


Figure 35 – Real time data of Agent application displayed on the Portal Data Viewer

Continue to click on the **aura\_application**, **aura\_ivr**, **aura\_nodal**, **aura\_route** and **aura\_skillset** tabs to display its real time data streamed from CCMS server.

## 8. Verification Steps

The following are typical steps to verify the interoperability between the SES v11.0.1 and AACC 6.0.

- Create 4 ACD IP Phone agents in CS1000 system.
- Acquire these agents by AACC.
- Log these agents in.
- Make a call to controlled DN of AACC.
- Answer incoming call on agent phone.
- Open the SES Portal Data Viewer and check the RTD data, it should be accurate and matched with RTD data on the AACC.

## 9. Conclusions

All of the executed test cases have passed and met the objectives as outlined in **Section 2**. The SYMON's SES v11.0.1 is considered compliant with Avaya Aura Contact Center Release 6.0.

## 10. Additional References

Product documentation for Avaya products may be found at:

<https://support.avaya.com/css/Products/>

Product documentation for SYMON products may be found at:

<http://www.symon.com/support.shtml>

[1] Avaya CS1000 Documents:

[Avaya Communication Server 1000E Installation and Commissioning](#)  
[Avaya CS 1000 Co-resident Call Server and Signaling Server Fundamentals](#)  
[Avaya CS 1000 Element Manager System Reference - Administration](#)

[2] Avaya Aura CC 6.0 documents:

[Avaya Aura™ Contact Center Planning and Engineering](#)  
[Avaya Aura™ Contact Center Installation](#)  
[Avaya Aura™ Contact Center Server Administration](#)  
[Avaya Aura™ Contact Center Overview](#)  
[Avaya Aura™ Contact Center Fundamentals](#)  
[Avaya Aura™ Contact Center Manager Administration – Client Administration](#)

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